

Appl. No. 09/682,764

Amtd. Dated 3 November 2003 (*Insert Date mailed or faxed*)

Reply to Office action of 1 August 2003

REMARKS/ARGUMENTS

Claims 1-40 remain in this application.

With respect to the 35 USC 112, second paragraph, rejection, although Applicant believes that "variations" inherently means changes in signal over time (between at least two time periods) and traverses this rejection, to expedite prosecution, Applicant has amended independent claims 1, 19, and 28, to include "over time" wording in response to the Examiner's suggestion in the Office action on Page 2, section 2, last paragraph. Applicant respectfully submits that this has not changed the scope of the claims and no new search is required.

With respect to the objection and indication of allowable subject matter in claims 12, 13, 36, and 37, Applicant thanks the Examiner but has not amended the claims because Applicant believes the base claims to be in condition for allowance for the reasons discussed below.

With respect to the 35 USC 102(b) rejection of Claims 1-11, 14-35, and 38-40 on Whipple III et al., US Patent No. 5,805,664 (hereinafter "Whipple"), Applicant respectfully traverses this rejection. More specifically, Applicant respectfully submits that Whipple does not teach or disclose the claim 1, 19, and 28 recitations (with emphasis added) of:

1. A core contact detection method comprising:
 - (a) positioning at least two electrically conductive plates near at least two respective laminations of a laminated core;
 - (b) supplying an excitation signal to the at least two electrically conductive plates; and
 - (c) using a resulting signal to **detect variations over time in capacitance between the at least two electrically conductive plates representative of a core contact.**
19. A core contact detection method comprising:
 - (a) positioning at least two electrically conductive plates near at least two respective adjacent laminations along at least one tooth of a laminated core;
 - (b) supplying an excitation signal to the at least two electrically conductive plates;
 - (c) using a resulting signal to detect variations over time in capacitance between the at least two electrically conductive plates representative of a core contact; and
 - (d) moving the at least two electrically conductive plates axially relative to the at least one tooth while repeating (a) - (c) and **using the plurality of resulting measured signals to detect core contacts.**
28. A core contact detection system comprising:
 - (a) at least two electrically conductive plates configured to be positioned near at least two respective laminations of a laminated core; and
 - (b) a processor configured for supplying an excitation signal to the at least two electrically conductive plates and using a resulting signal to **detect variations over time in capacitance between the at least two electrically conductive plates representative of a core contact.**

As repeatedly used by Applicant, in Specification paragraphs 1, 8, 9, and 36, for example, "core contact" refers to keybars in contact with core laminations and core laminations shorted together. As used by Applicant, "near" means "close enough proximity (without touching) such that the resulting signal has sufficient resolution"

Whipple appears to be directed to a system for determining whether a collar assembly is in contact with a subject (patient) and not to contacts within the collar. What Whipple appears to be directed to is putting sensors

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270 on (that is, touching – in contrast to Applicant's "near") the collar assembly with electrodes that become deformed upon contact to a subject and result in electrical resistance changes that are detected by a processor (Whipple column 2, lines 21-32). As described in column 3, lines 1-16, the sensors 270 can further be used for capacitive ranging "to move the gantry to a desire position with respect to the imaged object." It appears that the capacitance between flexible sensor elements on the collar and the patient's body is being used to estimate the distance between the device and the body in Whipple because capacitance is inversely proportional (roughly) to that distance.

Additionally, Applicant cannot find any of the words "core" or "lamination" or "laminated" by doing a word search through Whipple. Applicant respectfully submits that these recitations of Applicant's claim cannot be ignored.

Each of the remaining claims depends from one of the three cited independent claims and is believed to be in condition for allowance for at least that reason. Specific statements in the office action about rejected dependent claims will be addressed below.

With respect to the Office action statement regarding claims 2 and 21, because Whipple does not appear to describe laminations, Applicant fails to see how the recitation of "near at least two respective adjacent laminations" could be disclosed.

With respect to the Office action statement regarding claim 3, 5, 6, 17, 18, 26, 27, Applicant did a word search for "tooth" and "teeth" and did not find these words in Whipple. There is no indication that collar assembly 130 includes teeth. In Whipple column 4, lines 6-9, the collar assembly is described as being donut-shaped having a circular tube-type structure. As can be seen from FIGs. 1-2, the collar assembly appears to be a smooth ring represented by the two circles in FIG. 2. When the Office action indicates that teeth are shown in the figures, Applicant interprets the Office action as implying that the W shapes which are indicated generally with the brackets for sensors 270 are the "teeth". However, as can be seen by Whipple column 4, lines 50-54, elements 270 comprise a plurality of electrode segments which are deposited onto the ring like collar (column 5, lines 7-9). Thus, Applicant submits that core teeth are not disclosed by Whipple.

With respect to the Office action statement regarding claim 4, because teeth are not disclosed by Whipple, the specific direction of movement recited by Applicant is additionally not disclosed.

With respect to the Office action statement regarding claim 5, Applicant traverses the characterization of "processor 250" of Whipple as a bridge circuit and respectfully submits that Whipple does not describe a bridge circuit.

With respect to the Office action statement regarding claims 11 and 14, Applicant submits that Whipple does not disclose laminations or orientation of plates with respect to laminations.

With respect to the Office action statement regarding claims 15, 16, 24, 25, Applicant again cannot find the cited language in Whipple and respectfully requests that the Examiner point out the locations regarding coupling of the sense plates, the excitation signal, and obtaining the current and voltage signals from the coupled sense plate.

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With respect to the Office action statements regarding claims 28-35 and 38-40, as described above, core contact as used by Applicant is not disclosed and more specifically, laminations of a laminated core are not referenced and the sensors touch and do not meet Applicant's definition of "near."

Accordingly, Applicant respectfully submits that the claims define allowable subject matter over the applied art. Withdrawal of the rejections is respectfully requested, and allowance is respectfully solicited.

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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